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Subject: Platts: Dueling studies reach opposite conclusions about Wyoming water, fracking

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Dueling studies reach opposite conclusions about Wyoming water, fracking Houston (Platts)--4Oct2012/434 pm EDT/2034 GMT

Oil and gas industry advocates and environmental groups this week released competing analyses that came to opposite conclusions about the meaning of data derived from water samples collected from an Environmental Protection Agency monitoring well outside the small western Wyoming town of Pavillion.

The US Geological Survey last month released data the agency collected during groundwater testing it conducted in April near Pavillion. The USGS offered no analysis of its data to support or refute a draft report the EPA released last December that linked water contamination to hydraulic fracturing.

However, following the release of the USGS report, EPA spokeswoman Alisha Johnson said in a statement that the USGS findings were "generally consistent with groundwater monitoring data previously released by EPA."

On Thursday, industry advocacy group Energy in Depth released its own review of the USGS data, which EID claimed contradicted that EPA position.

"So far, Energy In Depth has identified more than 50 individual measurements from the EPA's draft Pavillion report that have been discredited by the USGS," EID spokesman Simon Lomax said in a statement.

Lomax said 40 of the EPA's measurements "were discredited by USGS because EPA's second monitoring well, MW02, was built so poorly that USGS refused to take groundwater quality samples from it." The USGS has confirmed that it was unable to collect enough water from MW02 for a sample.

In eight cases, substances measured by the EPA were not detected by the USGS, Lomax said. These include chemicals associated with oil and gas activity, including toluene, xylenes and 2-butoxyethanol.

In addition, the USGS found significantly lower levels of six chemicals than the EPA detected. These include: potassium and diesel-range organics.

In an interview, Lomax said EID did not perform a scientific analysis of the USGS data, but did an item-byitem comparison between the list of chemicals found in its samples by USGS and that compiled by the EPA.

Encana, the operator of the Pavilion gas field, also studied the USGS data and came to a conclusion similar to EID, spokesman Doug Hock said Thursday.

One of the discrepancies that Encana found in the EPA data was in the pH values, which EPA asserted in its draft report were due to the presence of potassium chloride. However, Encana did not use that chemical in the frack jobs performed in the Pavillion Field, according to the company's study.

In addition, Hock noted that, "when they purged the well, those pH levels dropped, which bears out that the wells were not properly constructed."

On Wednesday, the Sierra Club, Earthworks and the Natural Resources Defense Council released an

analysis of the USGS data, which the environmental groups claimed supported EPA's initial findings.

"EPA's analysis should be widely accepted now that its findings have been replicated," the groups said in a statement.

Their study, performed by independent hydrologist Tom Myers of Reno, Nevada, "found that thermogenic gas, which very likely comes from fracked deep shale formations, continues to increase in a monitoring well. This evidence strongly suggests that as a result of fracking, gas is seeping into Pavillion's water," the environmentalist groups said.

Meyers said his research gives him "no reason to reject the hypothesis" by the EPA that the groundwater contamination was most likely the result of hydraulic fracturing in nearby gas wells.

"EPA stopped a little short in their conclusions," he said. The EPA found evidence of hydrocarbons and chemicals that are associated with fracking in both the shallow drinking water wells it tested outside Pavillion as well as from the two deep monitoring wells it drilled in the area.

While the presence of hydrocarbons in the shallow and deep water wells could be attributed to natural sources, the discovery of the drilling-related chemicals in the deep monitoring wells points to fracking as the most likely source, Meyers said.

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